WETLAND DELINEATION MEMORANDUM

TO:	Ms. Martha Bosworth (EPA Region I Site Assessment Manager)	MB	3/4/14
FROM:	Ms. Stephanie Bitzas		1/30/14
THRU:	Mr. John F. Kelly (Project Leader)	JK	1/30/2014
	Mr. Gerald Hornok (Site Leader)		1/30/14
	Ms. Julie Foley (VT DEC District Wetlands Ecologist)	Jef	2/26/14
		Endorsement	Date

PROJECT: Site Reassessment
W.O. NO.: 20114-091-998-0850-40
DATE: 30 January 2014

SUBJECT: Wetland Delineation Memorandum
Jard Company, Inc.
Bennington, Vermont
CERCLIS No. VTD048141741
State ID No. 770138
TDD No. 12-10-0008

Introduction

On 5 April 2013, under the direction of the U.S. Environmental Protection Agency (EPA) Region I, Weston Solutions, Inc. (WESTON®), Superfund Technical Assessment and Response Team (START) personnel documented wetland delineation activities conducted/confirmed by Vermont (VT) Agency of Natural Resources (ANR) Department of Environmental Conservation (DEC) District Wetlands Ecologist Julie Foley, which were associated with the surface water pathway for the Jard Company, Inc. (Jard) property, Bennington, Bennington County, VT (see Attachment A, Figure 1). Wetland delineation was undertaken to determine/confirm and document the wetland types for two wetland areas in the vicinity of the Jard property, as part of the EPA Site Assessment Program Jard Site Reassessment (SR). Via site observations, and using the wetland definition outlined in 40 CFR 230.4, Wetland Ecologist Foley confirmed that the 2002 mapped wetland areas west of Park Street, delineated by North Country Ecological Services, generally remained consistent and could aid in determining 40 CFR 230.4 eligible wetlands that could be used for possible Hazard Ranking System (HRS) Scoring. Wetland Ecologist Foley and START personnel outlined/confirmed eligible wetland areas and stream frontages located on Property P030, located between the residential lots west of Park Street and the eastern edge of the shopping center property (located at 19 Kocher Drive, Bennington VT) on the west; and between the Walloomsac River (also referred to locally as Roaring Branch) on the south and Furnace Brook on the north. Wetland Ecologist Foley and START personnel also identified, reconnoitered, and outlined an eligible wetland area with similar wetland characteristics (types), located northeast of the Jard Company Inc. site, near the intersection of North Branch Street and Bowen Road, Bennington VT.

General Information

The Jard property is located at 259 Bowen Road in Bennington, Bennington County, VT (see Attachment A, Figure 1). The geographic coordinates of the property, as measured from the approximate center of the former building footprint, are 42° 53′ 21.5″ north latitude and 73° 11′ 21.9″ west longitude (see Attachment A, Figure 1). The Jard property is approximately 11.26 acres identified by the Town of Bennington, VT Tax Assessor's Office as Parcel 45017300. The property is bordered to the north by Bowen Road and an industrial property; to the east by a state of VT Department of Transportation (DOT) maintenance facility; to the south by the Walloomsac River; and to the west by recreational fields (baseball) (see Attachment A, Figure 1 and Figure 2).

Two wetland areas associated with the Jard Comprehensive Environmental Response, Compensation, and Liability Act **(**CERCLA**)** SR were reconnoitered and delineated and/or confirmed by START and VT ANR DEC Wetland Ecologist Julie Foley: a background wetland area and a release wetland area. The release wetland area is located on Property P030, located between the residential lots west of Park Street and the eastern edge of the shopping center property (located at 19 Kocher Drive, Bennington VT) on the west; and between the Walloomsac River (also referred to locally as Roaring Branch) on the south and Furnace Brook on the north. Wetlands Ecologist Foley and START personnel also identified, reconnoitered, and outlined an eligible wetland area with similar wetland characteristics (types), located northeast of the Jard Company Inc. site, near the intersection of North Branch Street and Bowen Road, Bennington, VT.

Background

The United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) indicates an area of wetland northeast of the Jard property, which START has designated as a background wetland area for Jard Site SR activities. The HRS uses the definition of a wetland presented in 40 CFR 230.3 which differs from the USFWS definition in that, under normal circumstances, the wetland should support a prevalence of rooted emergent hydrophytes. Therefore, the NWI maps present some wetland types that may be eligible in HRS scoring, depending on the presence of these rooted hydrophytes (Possible HRS Wetlands) (see Attachment D, Supporting Documentation).

Two separate wetland types were noted on the NWI maps within the vicinity of the area of concern and are as follows (see Attachment A, Figure 3):

- PSS1B (HRS Eligible Wetland) – Palustrine Scrub-Shrub Broad-Leaved Deciduous Saturated
- R2UBH (Generally Not HRS Eligible Wetland) – Riverine Lower Perennial Unconsolidated Bottom Permanently Flooded

According to NWI maps, PSS1B wetlands are present northeast of the Jard property adjacent to Bowen Road. This area is considered by START to an upgradient background wetland area, and there is no evidence to suggest that it is impacted by the contaminants associated with the Jard Site.

According to Vermont Geographic Information System (GIS) documents, several wetland areas (VT ANR Class 2 Wetlands and Hydric soil areas) are mapped in the vicinity of the Jard property. These documents identify several small wetland areas in the vicinity of the Jard site and residential properties along Park Street, including both the START release and background wetlands identified and discussed in this memorandum (see Attachment A, Figure 4; and Attachment D, Supporting Documentation).

Wetland Delineation

On 5 April 2013, VT ANR DEC District Wetlands Ecologist Julie Foley, accompanied by START members John F. Kelly and Stephanie Bitzas, reconnoitered /walked both wetland areas to determine the accuracy of the existing wetland delineation maps, and to provide general identifications and outline of wetland types found in these two areas. Wetlands Ecologist Foley and START members Kelly and Bitzas reviewed and discussed the wetland delineation documentation prepared by North Country Ecological Services in 2002 for the wetland on property P030. START members Kelly and Bitzas noted North Country Ecological Services wetland delineation markers (flagging) still remaining within the wetland; and mapped and flagged wetland boundaries, as well as changes identified by Wetlands Ecologist Foley from the previously completed wetland delineation within the release wetland. Wetlands Ecologist Foley denoted the types of wetlands observed and the characteristic used to distinguish the wetland types. START member Bitzas photodocumented vegetation identified by VT DEC District Wetlands Ecologist Foley used as indicators of wetland types. START members later used the North Country Ecological Services wetland delineation map boundaries and markers (flagging), the wetland boundaries and types identified by Wetlands Ecologist Foley, as well as the characteristic wetland vegetation, to prepare a map of the boundaries of the various wetland types identified and/or confirmed to create a map using a Global Positioning System (GPS) unit (see Attachment A, Figure 5a). Table 1 presents the wetland ID number, type, and acreage of the wetland areas mapped (see Attachment B, Photodocumentation Log; Attachment C, Table 1). Table 2 presents the wetland ID number, type, and frontage along the Unnamed Stream within the release wetland area mapped (see Attachment C, Table 2).

Based on observations by Wetlands Ecologist Foley, the wetland areas mapped adjacent to the Park Street residential properties were generally consistent with the wetland delineation performed by North Country Ecological Services on 20 May 2002, with the exception of an area west of an Unnamed Stream that runs through the northern half of the parcel (Property P030). Beginning on the southern portion of the release wetland, located directly north of the Walloomsac River and west of the residential properties on Park Street, wetland acreage was confirmed by following the existing delineation from North Country Ecological Services. As areas of the wetland were confirmed to be accurate on the delineation map, blue flagging was used to indicate wetland types and boundaries. VT DEC District Wetlands Ecologist Foley identified areas of wetlands that were a mix of Palustrine Emergent Marsh (PEM) and Palustrine Scrub-Shrub (PSS) throughout the area along the western boundaries of residential properties P006 and P007 [Wetlands Identification (ID) numbers 1through 5]. Areas of PSS, PEM, and Palustrine Forested (PFO) wetlands [Wetlands ID numbers 7, 8, 9, 10, 11, 13, and 14) were also identified west of residential properties P005 and P041 adjacent to the two open water bodies. A line of PEM wetlands borders both sides of the Unnamed Stream from the point where the stream flows west onto Property P030 from Property P041, to within a few feet

(approximately 20 feet) of the convergence with Furnace Brook (Wetlands ID Number 9). A PSS wetland (Wetland ID number 17) extends along both sides of the Unnamed Stream segment along the remaining 21.1-foot segment before converging with Furnace Brook. Wetlands Ecologist Foley noted areas of PSS type wetlands (Wetland ID numbers 12, 15, 16 and 17) bordering some of the PEM wetland segments along the Unnamed Stream.

Wetlands Ecologist Foley noted that the area to the northwest of the Unnamed Stream, east of the shopping center property (located at 19 Kocher drive) parking area, contained vegetation that indicated some of the area may still be classified as wetland, but this area has been altered/disturbed by heavy machinery and mechanical activity. Wetlands Ecologist Foley noted that more extensive investigation of the soil hydrology throughout this area would be required in order for it to be classified as a wetland under the wetland definition outlined in 40 CFR 230.4.

Wetlands Ecologist Foley assisted START members in identifying wetland frontage along the Unnamed Stream that could be used in possible HRS scoring. VT DEC District Wetlands Ecologist Foley noted that there were PEM and PSS wetland fringes lining the banks of the Unnamed Stream. The stream length of the Unnamed Stream segment bordered by PEM wetland between the point where the Unnamed Stream flows on Property P030 and the convergence with Furnace Brook has been measured at 0.1481miles. Since it has been documented that there are continuous HRS-eligible (PEM) wetlands on both sides of this stream segment between the point where the Unnamed Steam flows onto Property P030 and the convergence with Furnace Brook, the stream length is multiplied by 2 to get the frontage for this wetland area, which is 0.2962 frontage miles. Furthermore, START has measured the stream length of the Unnamed Stream segment from the point where the Unnamed Steam flows onto Property P030 to START sediment sample location SD-49, which equals 0.1273 miles. Likewise, since there are continuous HRS-eligible (PEM) wetlands on both sides of this stream segment between the point where the Unnamed Steam flows onto Property P030 and START sediment sample location SD-49, START has calculated the wetland frontage along this segment to be 0.2546 miles. Note that one-tenth (0.1) mile of wetland frontage is needed for possible HRS listing consideration.

Additional observations noted by Wetlands Ecologist Foley and START personnel during wetland activities included the following:

- The Unnamed Stream was observed to converge with Furnace Brook at the northeastern corner of the property identified as Property P030.
- Water within the two open water ponds located in the wetland area, west of the residential properties, flows to the Unnamed Stream via overflow drainage paths between the ponds and the stream.
- The Unnamed Stream originates within a small collection pond to the east of Park Street, south of the entrance to the ball fields (Property P031), on the northwestern corner of residential property P011.
- The small drainage pond to the east of Park Street, south of the entrance to the ball fields (Property P031), on the northwestern corner of residential property P011, is considered the headwaters for the Unnamed Stream and the most upstream probable point of entry (PPE) for the Jard 15-mile downstream Surface Water Pathway being investigated during the Jard Company, Inc. SR.

- Site observations note that there is a steady flow of water entering this small drainage pond from two small pipes (an approximate 4-inch and 6-inch-diameter pipe), allegedly constructed as sump pump outfalls for the residence on P011, to redirect groundwater from the area of the basement to the pond. However, at the time of the observations, the P011 residence's sump pump water flow had been redirected to two polyvinyl chloride (PVC) pipes discharging to the ground surface in the front yard of the property. Continued flow of water from the disconnected sump pump piping suggests that groundwater may be entering the pipes and discharging to the small drainage pond through other pathways.
- Stream flow observed discharging from the small drainage pond at the headwaters of the Unnamed Stream appears to be continuous and to exceed the water input volume that was observed discharging from the two discharge pipes, suggesting that additional sources of water are entering the small drainage pond, possibly as groundwater seeps below the surface of the small drainage pond.
- Several springs with water upwelling were observed by START personnel during wetland delineation activities, suggesting a groundwater to surface water flow connection is occurring in these areas.
- A PVC pipe was observed to the west of residential property P007, discharging to the wetlands west of Park Street. Conversations with the owner of the residence indicated that the pipe allegedly originates at the duck pond on the eastern edge of Park Street and drains to the wetland.
- A second PVC pipe was observed to the west of residential property P008, discharging to the wetlands west of Park Street. The pipe trends on an east-to-west heading, but it is unclear where this pipe may originate.
- Surface water within the wetland to the west of Park Street has a continuous flow along the borders of the residential properties in a north and northwesterly direction. This may reflect the top of the ground water table intersecting the bottom of the surface water elevation, resulting in a groundwater to surface water flow release.
- There is an area of upland, where the "Pent Road Right of Way" was previously located and observed in the east-central portion of the wetland, west of residential properties P006 and P007.
- Surface water flow was observed along the northern and eastern edges of the upland area, west of residential property P006, indicating a potential release of ground water to surface water in this area.
- Additionally, surface water flow in a northerly direction was observed along the eastern edge of the upland areas, west of residential properties P009 through P007, indicating a potential release of ground water to surface water in this area. Additionally, it is likely that the surface water from the southern portion of the wetland is hydraulically connected with the northern portion despite the upland area partially blocking a northerly flow pattern.
- Discharges from sump pumps from residential basements where observed on several of the residential properties west of Park Street and east of the release wetland. These discharges may be contributing to the flow (and contamination) present in the release wetland via Groundwater to Surface Water release.

The other wetland area that was evaluated by VT DEC District Wetlands Ecologist Foley was the "Background Wetland" northeast of the Jard property. Delineation had not been previously

performed on this wetland; but it is present on the NWI map, and identified as PSS1B. However, Wetlands Ecologist Foley confirmed the presence of PSS wetlands within the area, and further identified PEM wetlands and PFO wetlands present in the area. She also pointed out that the wetland extends to the southeast past the area that is being evaluated as potential background by START; this area was not characterized. Two open water ponds were noted in the wetland area, as well as an area previously characterized as PSS adjacent to Bowen Road and Vermont Container Corporation, which is now filled with debris/soil and classified by Foley as upland.

On 16 April 2013, START members Bitzas and Gerald Hornok utilized a GPS to locate and document the outline of the wetland to the west of the residential properties that was previously flagged with blue flagging. Breaks in the wetland type and surface water drainage features were also noted. Wetland types observed on the Park Street wetland area included PEM wetlands indicative of a freshwater intrusion to the environment, PSS wetlands, and PFO wetlands. The wetland types throughout this wetland area were determined based largely on the vegetation present. Frontage along the stream was characterized as mainly PEM, but PSS was also present in some areas based on vegetation observations. Release sediment samples were collected from this wetland property, and background samples were collected from the wetland on Bowen Road.

On 19 April 2013, START members Kelly and Ken Robinson utilized a GPS to locate and document the outline of the wetland to the northeast of the Jard site. Vegetated and open water areas were mapped with breaks in the wetland type. PEM, PSS, and PFO wetlands were documented in the field notes, as well as background sediment sample locations.

In conclusion, using the distinctive wetland vegetation, the existing delineation map, and information provided by Wetlands Ecologist Foley during the site walk, START members were able to use GPS to outline HRS-eligible wetland boundaries and types within the release wetland, located on Property P030. Wetlands Ecologist Foley and START also noted HRS-eligible wetlands frontage along both sides of the Unnamed Stream between the point where the Unnamed Steam flows onto Property P030 and the convergence with Furnace Brook, measuring in excess of 0.1 miles.

Furthermore, based on observation of distinctive wetland vegetation, the NWI and VT DEC wetland maps, and information provided by Wetlands Ecologist Foley during the site walk, START members were able to use GPS to outline HRS-eligible wetland boundaries and types within the background wetland, located northeast of the Jard Company Inc. site, near the intersection of North Branch Street and Bowen Road, Bennington VT.

ATTACHMENT A - Figures

Jard Company, Inc.

Figure 1 – Site Location Map
Figure 2 – Area Map
Figure 3 – NWI Mapped Wetlands
Figure 4 – VT DEC ANR Wetlands
Figure 5a – Mapped Wetlands Overview
Figure 5b – Mapped Wetlands: Background
Figure 5c – Mapped Wetlands: Release

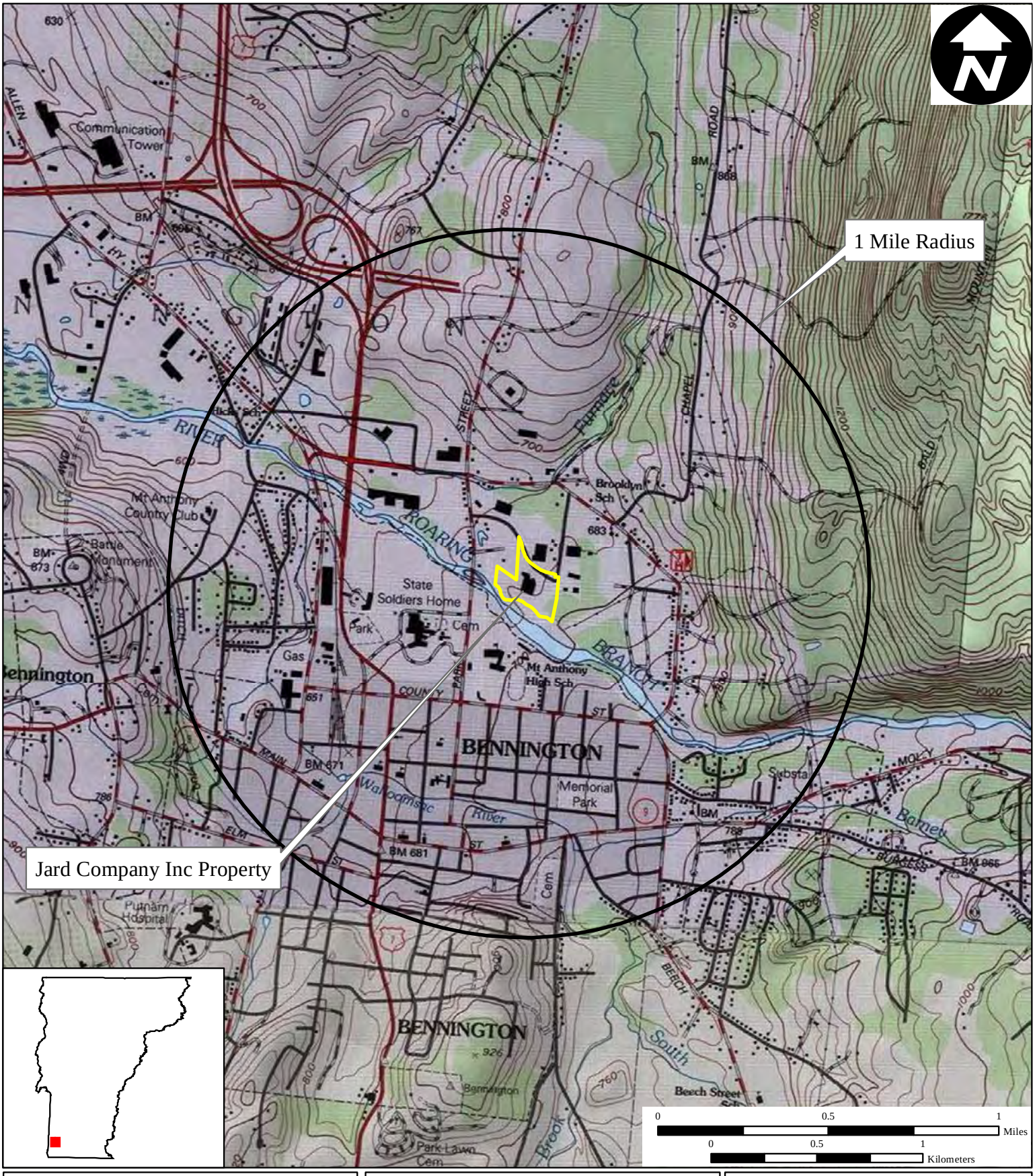

Figure 1

Site Location Map

Jard Company Inc
Bowen Road
Bennington, VT

EPA Region I
Superfund Technical Assessment and Response Team (START) III
Contract No. EP-W-05-042

TDD Number:	12-10-0008
Created by:	G. Hornok
Created on:	11 January 2013
Modified by:	G. Hornok
Modified on:	11 January 2013

Data Sources:
Topos: MicroPath/USGS
Quadrangle Name(s): Bennington, VT
All other data: START

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Figure 2A

Site Area Map

Jard Company Inc
Bowen Road
Bennington, VT

EPA Region I
Superfund Technical Assessment and Response Team (START) III
Contract No. EP-W-05-042

TDD Number:	12-10-0008
Created by:	G. Hornok
Created on:	11 January 2013
Modified by:	G. Hornok
Modified on:	13 September 2013

Legend

- Former Building Foundation
- Jard Property Boundary
- Pile Base

N

0 100 200 300 400 500 Feet

Data Sources:
Imagery:Bing Aerial Maps
Topos: NA
All other data: START, VT ANR GIS

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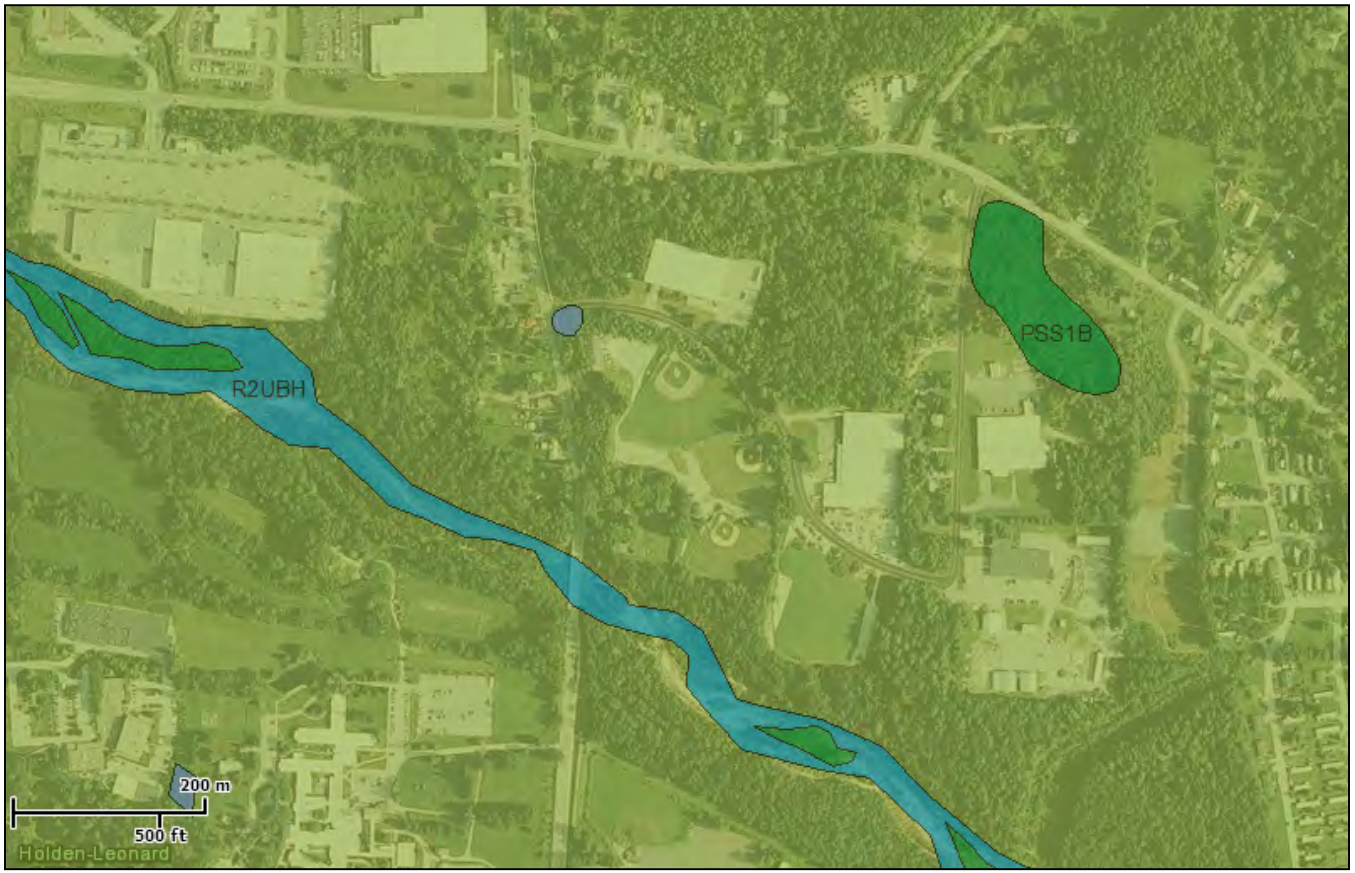
HRS Reference # 12

U.S. Fish and Wildlife Service

National Wetlands Inventory

Figure 3

Nov 16, 2012



Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

Status

- Digital
- Scan
- Non-Digital
- No Data

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

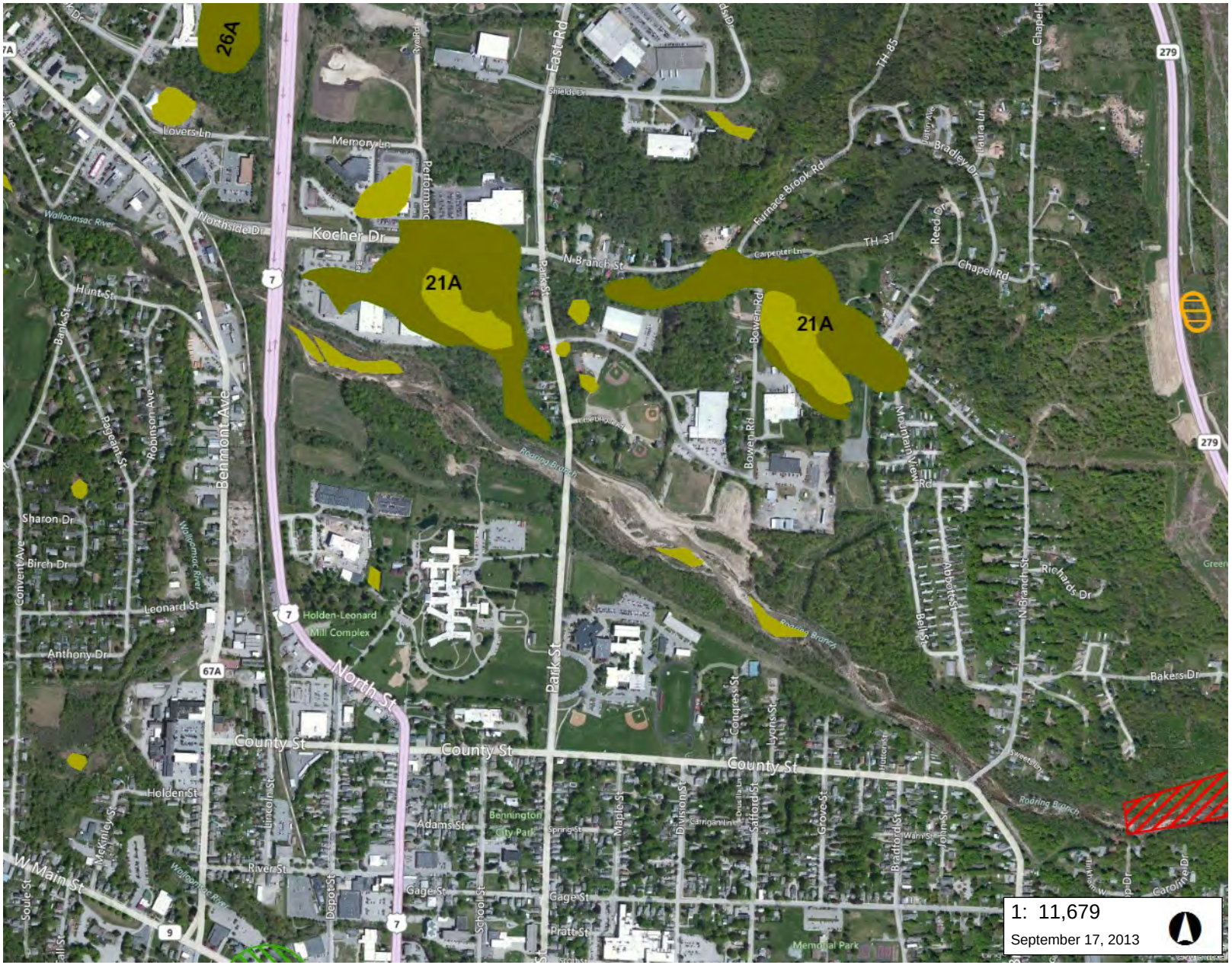
User Remarks:

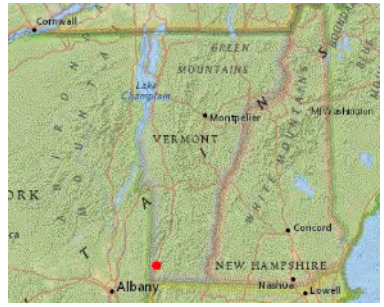
Natural Resources Atlas - Wetlands

Figure 4

Vermont Agency of Natural Resources

vermont.gov





LEGEND

- Rare Threatened Endangered
  - Threatened or Endangered
  - Rare
- Uncommon Species and Other
  - Animal
  - Plant
  - Natural Community
- Wetlands - VSWI
  - Class 1 Wetland
  - Class 2 Wetland
- Wetlands - VSWI Advisory Lay
- Soils - Hydric
- Town Boundary
- County Boundary

NOTES

Map created using ANR's Natural Resources Atlas

593.0 0 296.00 593.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere 1" = 973 Ft. 1cm = 117 Meters

THIS MAP IS NOT TO BE USED FOR NAVIGATION

DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. ANR and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.

Figure 5A

Mapped Wetlands Overview

Jard Company, Inc.
259 Bowen Road
Bennington, Vermont

EPA Region I
Superfund Technical Assessment and Response Team (START) III
Contract No. EP-W-05-042

TDD Number:	01-12-10-0008
Created by:	S. Bitzas
Created on:	24 April 2013
Modified by:	S. Bitzas
Modified on:	1 October 2013

Legend

- End of Mapping
- Approx. Property Boundary
- Piped
- Stream
- Open Water Body

Wetland Type

- Emergent
- Forested
- Scrub/Shrub

N

0 25 50 100 150 200 250 300 350 400
Feet

Data Sources:
Imagery: Bing Maps Aerial (Microsoft)
Topos: MicroPath
All other data: START

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HRS Reference # 12

Figure 5B

Mapped Wetlands: Background

Jard Company, Inc.
259 Bowen Road
Bennington, Vermont

EPA Region I
Superfund Technical Assessment and Response Team (START) III
Contract No. EP-W-05-042

TDD Number:	01-12-10-0008
Created by:	S. Bitzas
Created on:	24 April 2013
Modified by:	S. Bitzas
Modified on:	1 October 2013

Legend

- End of Mapping
- Approx. Property Boundary
- Open Water Body

Wetland Type

- Emergent
- Forested
- Scrub/Shrub

N

0 25 50
Feet

Data Sources:
Imagery: Bing Maps Aerial (Microsoft)
Topos: MicroPath
All other data: START

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HRS Reference # 12

Figure 5C

Mapped Wetlands: Release

Jard Company, Inc.
259 Bowen Road
Bennington, Vermont

EPA Region I
Superfund Technical Assessment and Response Team (START) III
Contract No. EP-W-05-042

TDD Number:	01-12-10-0008
Created by:	S. Bitzas
Created on:	24 April 2013
Modified by:	S. Bitzas
Modified on:	1 October 2013

Legend

- Extent of Mapping
- Piped
- Stream
- Open Water Body

Wetland Type

- Emergent
- Forested
- Scrub/Shrub
- Culvert

N

0 25 50 100 150
Feet

Data Sources:
Imagery: Bing Maps Aerial (Microsoft)
Topos: MicroPath
All other data: START

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HRS Reference # 12

ATTACHMENT B - Photodocumentation Log

Jard Company, Inc.

SCENE: View of wetlands east of Bowen Road; Bowen Road is visible in the lower left corner. Photograph taken facing northeast.

FRAME NUMBER: DSCF0380.JPG **DATE:** 27 March 2013 **TIME:** 1522 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of wetlands east of Bowen Road with a small stream visible in foreground. Photograph taken facing northeast

FRAME NUMBER: DSCF0381.JPG **DATE:** 27 March 2013 **TIME:** 1522 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of sediment sampling location SD-52 in wetlands east of Bowen Road indicated by the orange flagging and the white pin-flag. There is a body of surface water visible to the left. Photograph taken facing west.

FRAME NUMBER: CS_Photos 033.JPG **DATE:** 16 April 2013 **TIME:** 1001 hours
PHOTOGRAPHY BY: C. Scesny **CAMERA:** Apple iPhone 4S

SCENE: View of background wetlands east of Bowen road. There is a body of surface water visible. Several residences are visible in the background. Photograph taken facing west.

FRAME NUMBER: DSCF0382.JPG **DATE:** 27 March 2013 **TIME:** 1525 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of the background wetland area east of Bowen Road. Open surface water body is visible (center). Several residences are visible in the background. Photograph taken facing west.

FRAME NUMBER: DSCF0383.JPG **DATE:** 27 March 2013 **TIME:** 1525 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of sediment sampling location SD-52, indicated by orange flagging and a white pin-flag, in wetlands east of Bowen Road. There is a body of surface water visible to the left. Photograph taken facing west.

FRAME NUMBER: CS_Photos 033.JPG **DATE:** 16 April 2013 **TIME:** 1001 hours
PHOTOGRAPHY BY: C. Scesny **CAMERA:** Apple iPhone 4S

SCENE: View of background wetlands near sediment sampling location SD-55. There is an intermittent stream visible in foreground. Photograph taken facing north.

FRAME NUMBER: KR017.JPG **DATE:** 15 May 2013 **TIME:** 1027 hours
PHOTOGRAPHY BY: K. Robinson **CAMERA:** Apple iPhone 4S

SCENE: View of background wetlands near sediment sampling location SD-55. Open surface water body is fed by an intermittent stream in the foreground. Photograph taken facing west.

FRAME NUMBER: KR018.JPG **DATE:** 15 May 2013 **TIME:** 1028 hours
PHOTOGRAPHY BY: K. Robinson **CAMERA:** Apple iPhone 4S

SCENE: View of background wetlands east of Bowen Road. Photograph taken near sediment sampling location SD-55 facing east.

FRAME NUMBER: KR019.JPG **DATE:** 15 May 2013 **TIME:** 1028 hours
PHOTOGRAPHY BY: K. Robinson **CAMERA:** Apple iPhone 4S

SCENE: View of background wetlands east of Bowen Road. Photograph taken near sediment sampling location SD-55 facing east. Photograph taken facing northwest.

FRAME NUMBER: KR020.JPG **DATE:** 15 May 2013 **TIME:** 1032 hours
PHOTOGRAPHY BY: K. Robinson **CAMERA:** Apple iPhone 4S

SCENE: View of background wetlands east of Bowen Road. Photograph taken near sediment sampling location SD-55 facing east. Photograph taken facing east.

FRAME NUMBER: KR021.JPG **DATE:** 15 May 2013 **TIME:** 1034 hours
PHOTOGRAPHY BY: K. Robinson **CAMERA:** Apple iPhone 4S

SCENE: View of drainage ditch post-excavation by Vermont Department of Transportation along the western edge of the background wetlands southeast of the intersection of Bowen Road and North Branch Road. Photograph taken from Bowen Road facing east.

FRAME NUMBER: KR022.JPG **DATE:** 15 May 2013 **TIME:** 1038 hours
PHOTOGRAPHY BY: K. Robinson **CAMERA:** Apple iPhone 4S

SCENE: View of sediment sampling location, indicated by orange flagging in trees, in wetlands west of Park Street. Photograph taken facing southeast.

FRAME NUMBER: DSCF0372.JPG **DATE:** 27 March 2013 **TIME:** 1307 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of grassy field west of sediment sampling locations in wetlands behind Park Street residences. Several residences are visible in the background. The ponded areas are located in the wooded area to the right. Photograph taken facing west.

FRAME NUMBER: DSCF0374.JPG **DATE:** 27 March 2013 **TIME:** 1311 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of potentially impacted wetlands west of Park Street. Residences are visible in the background. Photograph taken facing east.

FRAME NUMBER: DSCF0436.JPG **DATE:** 05 April 2013 **TIME:** 1215 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of a grassy area in the potentially impacted wetlands west of Park Street. Photograph taken facing west.

FRAME NUMBER: DSCF0438.JPG **DATE:** 05 April 2013 **TIME:** 1219 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of excavated soils from potentially impacted wetlands west of Park Street by State of Vermont wetlands specialist. Photograph taken facing west.

FRAME NUMBER: DSCF0439.JPG **DATE:** 05 April 2013 **TIME:** 1221 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of potentially impacted wetlands west of Park Street. Note the standing surface water at the base of the uprooted tree. Photograph taken facing south.

FRAME NUMBER: DSCF0440.JPG **DATE:** 05 April 2013 **TIME:** 1226 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of potentially impacted wetlands west of Park Street. Residences are visible in the background. Photograph taken facing east.

FRAME NUMBER: DSCF0442.JPG **DATE:** 05 April 2013 **TIME:** 1230 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of stream east of Park Street near the athletic fields. The culvert in the upper right corner drains from the small drainage pond located on Property P011. Photograph taken facing southeast

FRAME NUMBER: DSCF0464.JPG **DATE:** 10 April 2013 **TIME:** 1540 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of small drainage pond on northwest corner of Property P011. Three sediment samples were collected from the edge of the pond, and surface soil sample P011-SS-02 was collected to the right of the pond. Property P009 and Property P008 are visible in the background on the west side of Park Street. The entrance to the athletic fields is visible above the culvert. Photograph taken facing north..

FRAME NUMBER: DSCF0465.JPG **DATE:** 10 April 2013 **TIME:** 1541 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of the background wetlands east of Bowen Road and north of the commercial shipping facility. Photograph taken facing east.

FRAME NUMBER: DSCF0560.JPG **DATE:** 19 April 2013 **TIME:** 0921 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of sediment sampling location at the edge of a small stream in the wetlands west of Park Street. Photograph taken facing west.

FRAME NUMBER: DSCF0561.JPG **DATE:** 19 April 2013 **TIME:** 0922 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of sediment sampling location at the edge of a manmade pond in the wetlands west of Park Street. Photograph taken facing south..

FRAME NUMBER: DSCF0563.JPG **DATE:** 19 April 2013 **TIME:** 0924 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of potentially impacted wetlands west of Park Street. Blue wetland delineation flagging is visible in a tree to the right. Residences are visible in the background. Photograph taken facing southeast.

FRAME NUMBER: DSCF0567.JPG **DATE:** 19 April 2013 **TIME:** 0926 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of potentially impacted wetlands west of Park Street. Yellow and blue wetland-delineating flagging is visible in the center of the picture. Photograph taken facing north.

FRAME NUMBER: DSCF0569.JPG **DATE:** 19 April 2013 **TIME:** 0926 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of sediment sampling location at the edge of a pond in the potentially impacted wetlands west of Park Street. Photograph taken facing southeast.

FRAME NUMBER: DSCF0570.JPG **DATE:** 19 April 2013 **TIME:** 0926 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of an intermittent stream located north of the ponded area within the potentially impacted wetlands west of Park Street. Photograph taken facing north.

FRAME NUMBER: DSCF0571.JPG **DATE:** 19 April 2013 **TIME:** 0927 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of a ponded area in the potentially impacted wetlands west of Park Street. A sediment sampling location is visible to the left of the pond, indicated by orange flagging tied to a tree. Photograph taken facing southeast.

FRAME NUMBER: DSCF0573.JPG **DATE:** 19 April 2013 **TIME:** 0927 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of an intermittent stream in the potentially impacted wetlands west of Park Street. Residences along Park Street are visible in the background. Photograph taken facing east.

FRAME NUMBER: DSCF0576.JPG **DATE:** 19 April 2013 **TIME:** 0928 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of sediment sampling location, indicated by orange flagging, near an exposed drum in the potentially impacted wetlands west of Park Street. Photograph taken facing north.

FRAME NUMBER: DSCF0579.JPG **DATE:** 19 April 2013 **TIME:** 0928 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of several sediment sampling locations along western edge of an unnamed stream in potentially impacted wetlands west of Park Street. The commercial plaza parking lot is visible to the left. Photograph taken facing north..

FRAME NUMBER: DSCF0581.JPG **DATE:** 19 April 2013 **TIME:** 0929 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of an intermittent stream in the potentially impacted wetlands west of Park Street. The pile of fill in the northwest corner of the field near the commercial plaza parking lot is visible in the upper left corner of the photograph. Photograph taken facing north.

FRAME NUMBER: DSCF0584.JPG **DATE:** 19 April 2013 **TIME:** 0931 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of stream in wetlands where sediment samples were collected, east of the commercial parking lot and south of Kocher Drive. Unnamed converging with Furnace Book to right and center of the photograph. Photograph taken facing west..

FRAME NUMBER: DSCF0586.JPG **DATE:** 19 April 2013 **TIME:** 0932 hours
PHOTOGRAPHY BY: G. Hornok **CAMERA:** Digital Camera FinePix XP 20 Ver. 1.01

SCENE: View of groundwater seep in potentially impacted wetlands west of Park Street. Direction of flow is southeast (right) to northwest (left). Photograph taken facing east-southeast.

FRAME NUMBER: KR001.JPG **DATE:** 14 May 2013 **TIME:** 1142 hours
PHOTOGRAPHY BY: K. Robinson **CAMERA:** Apple iPhone 4S

ATTACHMENT C - Tables

Jard Company, Inc.

Table 1 – Mapped Wetland Acreage
Table 2 – Mapped Wetland Frontage

Table 1 - Mapped Wetland Acreage

Wetland ID Number	Type/Attribute	Area (acres)	Wetland
1	PSS	0.10082	Release Wetland
2	PEM	0.18731	Release Wetland
3	PSS	0.24958	Release Wetland
4	PFO	0.03237	Release Wetland
5	PEM	0.21053	Release Wetland
6	PSS	0.05758	Release Wetland
7	PSS	0.55376	Release Wetland
8	PFO	0.29554	Release Wetland
9	PEM	0.76528	Release Wetland
10	PSS	0.01186	Release Wetland
11	PSS	0.01483	Release Wetland
12	PSS	0.03608	Release Wetland
13	PFO	0.02644	Release Wetland
14	PSS	0.01779	Release Wetland
15	PSS	0.01013	Release Wetland
16	PSS	0.06573	Release Wetland
17	PSS	0.08130	Release Wetland
18	PEM	1.10011	Background Wetland
19	PFO	0.04102	Background Wetland
20	PSS	0.01730	Background Wetland
21	PSS	0.06153	Background Wetland
22	PEM	0.26218	Background Wetland
23	PSS	0.66397	Background Wetland
24	PSS	0.06870	Background Wetland
25	PSS	0.20040	Background Wetland

Notes:
ID = Identification
PSS = Palustrine Scrub-Shrub
PEM = Palustrine Emergent Marsh
PFO = Palustrine Forested

Table 2 - Mapped Wetland Frontage

Wetland ID Number	Type/Attribute	Stream Length (miles)	Wetland Frontage	Water Body
9	PEM	0.1481	0.2962	Unnamed Stream
17	PSS	0.0038	0.0076	Unnamed Stream

Notes:

Wetland frontage was determined by multiplying the length of the unnamed stream by two since there were mapped wetlands present on both banks of the stream.

ID = Identification

PEM = Palustrine Emergent Marsh

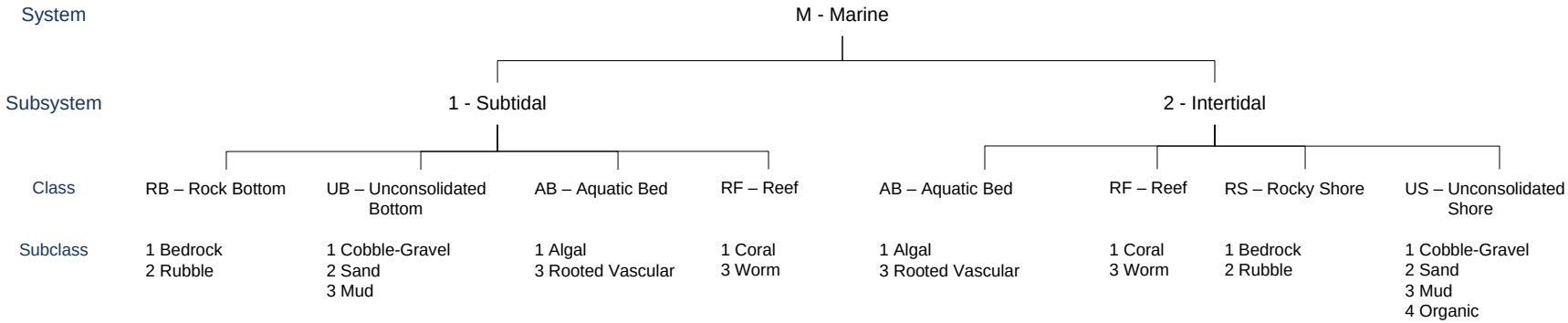
PSS = Palustrine Scrub-Shrub

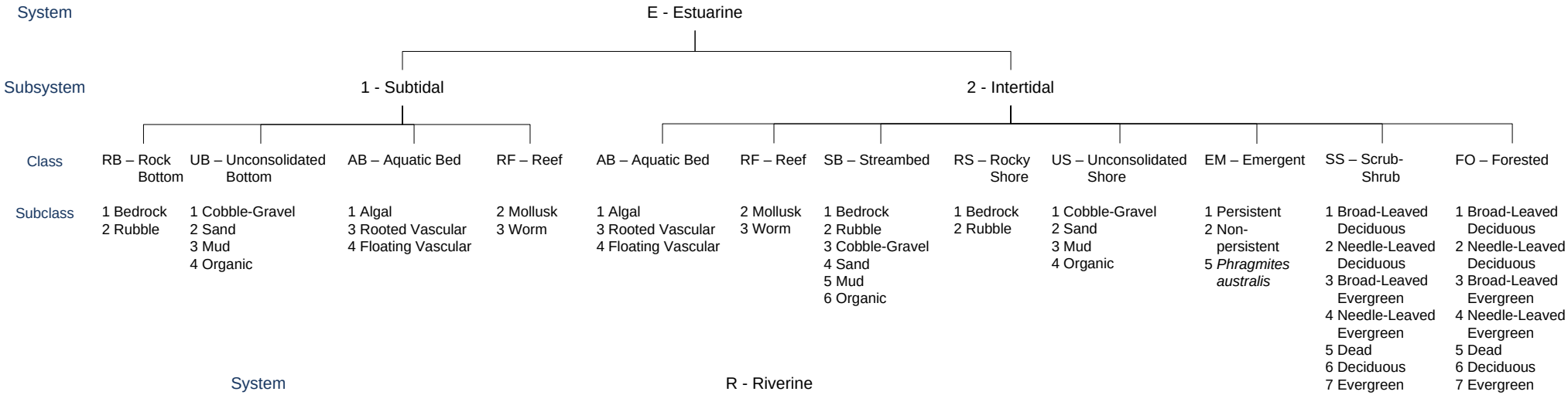
ATTACHMENT D – Supporting Documentation

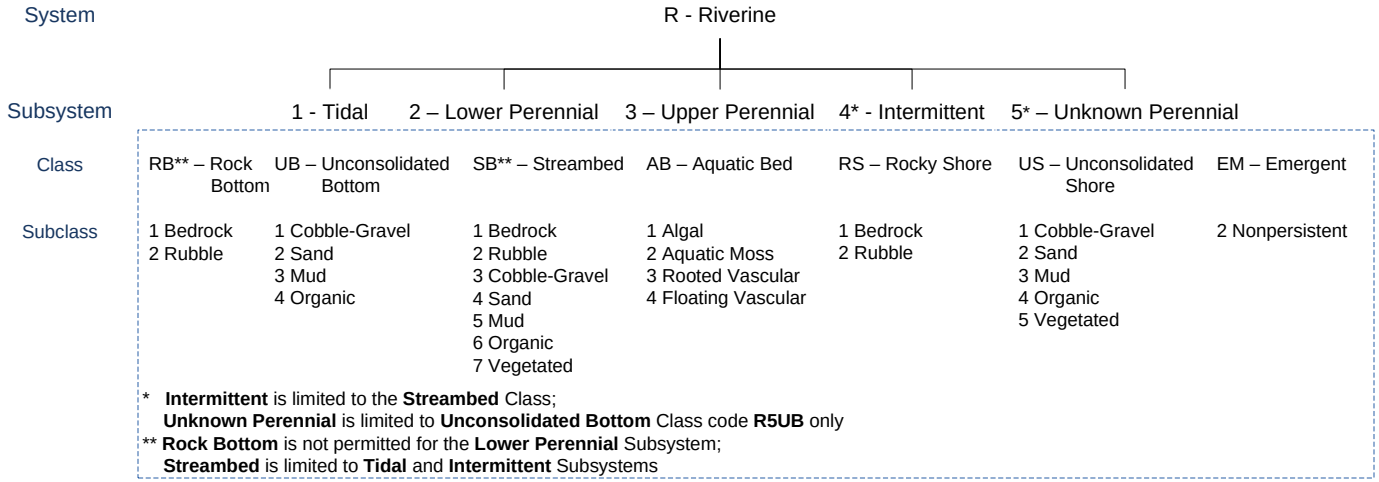
Jard Company, Inc.

1. **40 CFR 230.3**
2. **Wetlands and Deepwater Habitats Classification**
3. **Wetland Delineation Drawing**

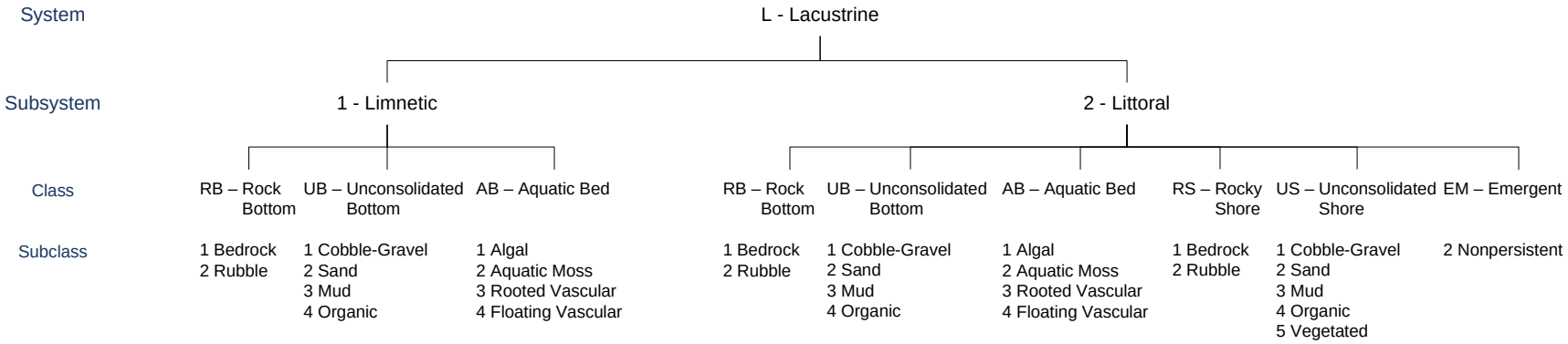
WETLANDS AND DEEPWATER HABITATS CLASSIFICATION

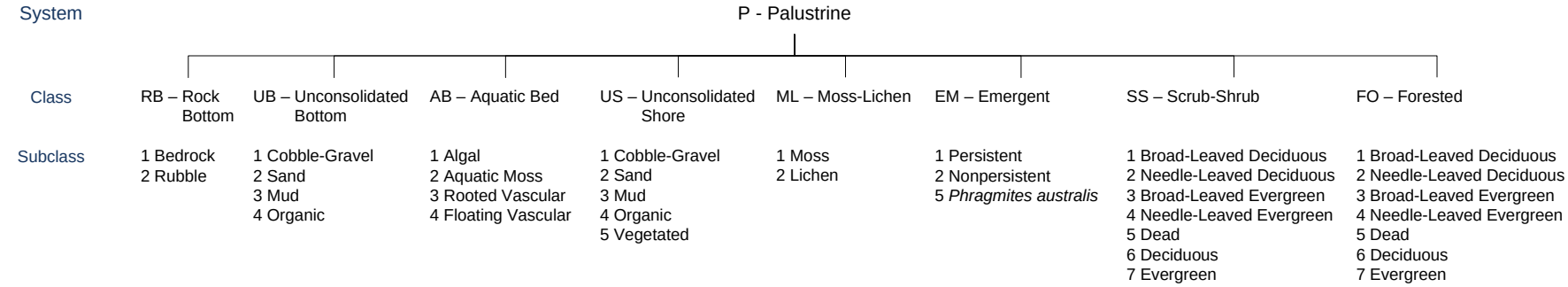






WETLANDS AND DEEPWATER HABITATS CLASSIFICATION





MODIFIERS

In order to more adequately describe the wetland and deepwater habitats, one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system.

Water Regime			Special Modifiers	Water Chemistry			Soil
Nontidal	**Saltwater Tidal**	**Freshwater Tidal**		**Coastal Halinity**	**Inland Salinity**	**pH Modifiers for all Fresh Water**	
A Temporarily Flooded	L Subtidal	S Temporarily Flooded-Tidal	b Beaver	1 Hyperhaline	7 Hypersaline	a Acid	g Organic
B Saturated	M Irregularly Exposed	R Seasonally Flooded-Tidal	d Partly Drained/Ditched	2 Euhaline	8 Eusaline	t Circumneutral	n Mineral
C Seasonally Flooded	N Regularly Flooded	T Semipermanently Flooded-Tidal	f Farmed	3 Mixohaline (Brackish)	9 Mixosaline	i Alkaline	
E Seasonally Flooded/ Saturated	P Irregularly Flooded	V Permanently Flooded-Tidal	h Diked/Impounded	4 Polyhaline	0 Fresh		
F Semipermanently Flooded			r Artificial	5 Mesohaline			
G Intermittently Exposed			s Spoil	6 Oligohaline			
H Permanently Flooded			x Excavated	0 Fresh			
J Intermittently Flooded							
K Artificially Flooded							

of the United States. Sites may be specified through:

(1) The regulatory program of the U.S. Army Corps of Engineers under sections 404(a) and (e) of the Act (see 33 CFR Parts 320, 323 and 325);

(2) The civil works program of the U.S. Army Corps of Engineers (see 33 CFR 209.145 and section 150 of Pub. L. 94–587, Water Resources Development Act of 1976);

(3) Permit programs of States approved by the Administrator of the Environmental Protection Agency in accordance with section 404(g) and (h) of the Act (see 40 CFR parts 122, 123 and 124);

(4) Statewide dredged or fill material regulatory programs with best management practices approved under section 208(b)(4)(B) and (C) of the Act (see 40 CFR 35.1560);

(5) Federal construction projects which meet criteria specified in section 404(r) of the Act.

(b) These Guidelines will be applied in the review of proposed discharges of dredged or fill material into navigable waters which lie inside the baseline from which the territorial sea is measured, and the discharge of fill material into the territorial sea, pursuant to the procedures referred to in paragraphs (a)(1) and (2) of this section. The discharge of dredged material into the territorial sea is governed by the Marine Protection, Research, and Sanctuaries Act of 1972, Pub. L. 92–532, and regulations and criteria issued pursuant thereto (40 CFR parts 220 through 228).

(c) Guidance on interpreting and implementing these Guidelines may be prepared jointly by EPA and the Corps at the national or regional level from time to time. No modifications to the basic application, meaning, or intent of these Guidelines will be made without rulemaking by the Administrator under the Administrative Procedure Act (5 U.S.C. 551 *et seq.*).

§ 230.3 Definitions.

For purposes of this part, the following terms shall have the meanings indicated:

(a) The term *Act* means the Clean Water Act (also known as the Federal Water Pollution Control Act or FWPCA) Pub. L. 92–500, as amended by Pub. L. 95–217, 33 U.S.C. 1251, *et seq.*

(b) The term *adjacent* means bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes, and the like are ''adjacent wetlands.''

(c) The terms *aquatic environment* and *aquatic ecosystem* mean waters of the United States, including wetlands, that serve as habitat for interrelated and interacting communities and populations of plants and animals.

(d) The term *carrier of contaminant* means dredged or fill material that contains contaminants.

(e) The term *contaminant* means a chemical or biological substance in a form that can be incorporated into, onto or be ingested by and that harms aquatic organisms, consumers of aquatic organisms, or users of the aquatic environment, and includes but is not limited to the substances on the 307(a)(1) list of toxic pollutants promulgated on January 31, 1978 (43 FR 4109).

(f)–(g) [Reserved]

(h) The term *discharge point* means the point within the disposal site at which the dredged or fill material is released.

(i) The term *disposal site* means that portion of the ''waters of the United States'' where specific disposal activities are permitted and consist of a bottom surface area and any overlying volume of water. In the case of wetlands on which surface water is not present, the disposal site consists of the wetland surface area.

(j) [Reserved]

(k) The term *extraction site* means the place from which the dredged or fill material proposed for discharge is to be removed.

(l) [Reserved]

(m) The term *mixing zone* means a limited volume of water serving as a zone of initial dilution in the immediate vicinity of a discharge point where receiving water quality may not meet quality standards or other requirements otherwise applicable to the receiving water. The mixing zone should be considered as a place where

wastes and water mix and not as a place where effluents are treated.

(n) The term *permitting authority* means the District Engineer of the U.S. Army Corps of Engineers or such other individual as may be designated by the Secretary of the Army to issue or deny permits under section 404 of the Act; or the State Director of a permit program approved by EPA under section 404(g) and section 404(h) or his delegated representative.

(o) The term *pollutant* means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials not covered by the Atomic Energy Act, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water. The legislative history of the Act reflects that ''radioactive materials'' as included within the definition of ''pollutant'' in section 502 of the Act means only radioactive materials which are not encompassed in the definition of source, byproduct, or special nuclear materials as defined by the Atomic Energy Act of 1954, as amended, and regulated under the Atomic Energy Act. Examples of radioactive materials not covered by the Atomic Energy Act and, therefore, included within the term ''pollutant'', are radium and accelerator produced isotopes. See *Train* v. *Colorado Public Interest Research Group, Inc.*, 426 U.S. 1 (1976).

(p) The term *pollution* means the man-made or man-induced alteration of the chemical, physical, biological or radiological integrity of an aquatic ecosystem.

(q) The term *practicable* means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

(q-1) *Special aquatic sites* means those sites identified in subpart E. They are geographic areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values. These areas are generally recognized as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of a region. (See § 230.10(a)(3))

(r) The term *territorial sea* means the belt of the sea measured from the baseline as determined in accordance with the Convention on the Territorial Sea and the Contiguous Zone and extending seaward a distance of three miles.

(s) The term *waters of the United States* means:

(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(2) All interstate waters including interstate wetlands;

(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:

(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

(iii) Which are used or could be used for industrial purposes by industries in interstate commerce;

(4) All impoundments of waters otherwise defined as waters of the United States under this definition;

(5) Tributaries of waters identified in paragraphs (s)(1) through (4) of this section;

(6) The territorial sea;

(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (s)(1) through (6) of this section; waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for

the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

(t) The term *wetlands* means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.

[45 FR 85344, Dec. 24, 1980, as amended at 58 FR 45037, Aug. 25, 1993]

§ 230.4 Organization.

The Guidelines are divided into eight subparts. Subpart A presents those provisions of general applicability, such as purpose and definitions. Subpart B establishes the four conditions which must be satisfied in order to make a finding that a proposed discharge of dredged or fill material complies with the Guidelines. Section 230.11 of subpart B, sets forth factual determinations which are to be considered in determining whether or not a proposed discharge satisfies the subpart B conditions of compliance. Subpart C describes the physical and chemical components of a site and provides guidance as to how proposed discharges of dredged or fill material may affect these components. Subparts D through F detail the special characteristics of particular aquatic ecosystems in terms of their values, and the possible loss of these values due to discharges of dredged or fill material. Subpart G prescribes a number of physical, chemical, and biological evaluations and testing procedures to be used in reaching the required factual determinations. Subpart H details the means to prevent or mimimize adverse effects. Subpart I concerns advanced identification of disposal areas.

§ 230.5 General procedures to be followed.

In evaluating whether a particular discharge site may be specified, the permitting authority should use these Guidelines in the following sequence:

(a) In order to obtain an overview of the principal regulatory provisions of the Guidelines, review the restrictions on discharge in § 230.10(a) through (d), the measures to mimimize adverse impact of subpart H, and the required factual determinations of § 230.11.

(b) Determine if a General permit (§ 230.7) is applicable; if so, the applicant needs merely to comply with its terms, and no further action by the permitting authority is necessary. Special conditions for evaluation of proposed General permits are contained in § 230.7. If the discharge is not covered by a General permit:

(c) Examine practicable alternatives to the proposed discharge, that is, not discharging into the waters of the U.S. or discharging into an alternative aquatic site with potentially less damaging consequences (§ 230.10(a)).

(d) Delineate the candidate disposal site consistent with the criteria and evaluations of § 230.11(f).

(e) Evaluate the various physical and chemical components which characterize the non-living environment of the candidate site, the substrate and the water including its dynamic characteristics (subpart C).

(f) Identify and evaluate any special or critical characteristics of the candidate disposal site, and surrounding areas which might be affected by use of such site, related to their living communities or human uses (subparts D, E, and F).

(g) Review Factual Determinations in § 230.11 to determine whether the information in the project file is sufficient to provide the documentation required by § 230.11 or to perform the pretesting evaluation described in § 230.60, or other information is necessary.

(h) Evaluate the material to be discharged to determine the possibility of chemical contamination or physical incompatibility of the material to be discharged (§ 230.60).

(i) If there is a reasonable probability of chemical contamination, conduct the appropriate tests according to the section on Evaluation and Testing (§ 230.61).

(j) Identify appropriate and practicable changes to the project plan to minimize the environmental impact of the discharge, based upon the specialized methods of minimization of impacts in subpart H.

Wetland Project Review Sheet

Project Name: Kocher Drive SC Realty — Project #: 2003-228

VSWI Map #: 19A — Act 250 #: _____ — Aerial Photo #: _____

Town: Bennington — County: _____ — Ortho Grid #: _____

Location Description: Kocher drive - east of existing shopping center

Contact: Brian Moss — Phone: 203-629-1919

Address: Shopping Center Realty, 35 Mason St. Greenwich CT — Reviewer: AG

Project Type: Res ____ Com/Ind ✓ Agr ____ Silv ____ Road/Hgwy ____
Pond ____ Public Proj ____ Util ____ Other ____

Review Category: Juris. Determ. ✓ CUD ✓ Allowed Use ____
Act 250 ✓ VT General Permit ____ 401 Cert. ✓
Violation ____ Complaint ____ S. 4409 ✓ Other ____

Action Taken (letter, site visit, hearing, etc.):

Date	Action	Date	Action
02	site visit Initial Contact	3/04	letter
6/04/03	site visit		
12/03	revised delineation		

Wetland 1: Location _____
Class 2 — NWI Type PSS1X
Wetland Type (field) PSS/EM/OWZ
NNHP Community Type shrub swamp, shallow marsh

Functions:

Flood Storage	X	Endangr spp	____
WQ Protection	X	Ed/Research	____
Fish Habitat	____	Rec/Economic	____
Wildlife	X	Open/Aes	____
Hydrophyt. veg	____	Erosion Control	X
No. sign. func.	____	Unknown	____

Alteration/Impact:

Initial - wetland:	Y or N	____	ft²
Final - wetland:	Y or N	____	ft²
Initial - buffer:	Y or N	____	ft²
Final - buffer:	Y or N	____	ft²

Alteration/Impact:
Fill ____ Dredge ____ Drain ____
Cut Veg ____ Stormwater ____
Buffer ____ Stream alt ____
Other ____

Compensation:
Restoration ____ Enhancement ____
Creation ____ sq. ft. ____

Wetland 2: Location _____
Class ____ NWI Type ____
Wetland Type (field) ____
NNHP Community Type ____

Functions:

Flood Storage	____	Endangr spp	____
WQ Protection	____	Ed/Research	____
Fish Habitat	____	Rec/Economic	____
Wildlife	____	Open/Aes	____
Hydrophyt, veg	____	Erosion Control	____
No. sign. func.	____	Unknown	____

Alteration/Impact:

Initial - wetland:	Y or N	____	ft²
Final - wetland:	Y or N	____	ft²
Initial - Buffer:	Y or N	____	ft²
Final - buffer:	Y or N	____	ft²

Alteration/Impact:
Fill ____ Dredge ____ Drain ____
Cut Veg ____ Stormwater ____
Buffer ____ Stream alt ____
Other ____

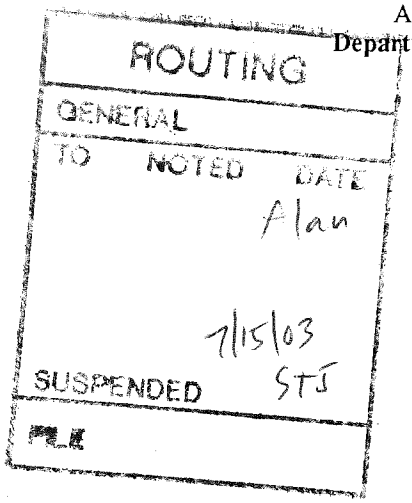
Compensation:
Restoration ____ Enhancement ____
Creation ____ sq. ft. ____

Revised 2/13/01

State of Vermont

Department of Fish and Wildlife
Department of Forests, Parks and Recreation
Department of Environmental Conservation
State Geologist
RELAY SERVICE FOR THE HEARING IMPAIRED
1-800-253-0191 TDD>Voice
1-800-253-0195 Voice>TDD

AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation
WATER QUALITY DIVISION
103 South Main Street
Building 10 North
Waterbury, VT 05671-0408
FAX 802-241-3287
TEL 802-241-3770



July 14, 2003

Mr. Ted Gladstone
Shopping Center Realty
35 Mason Street
Greenwich, Connecticut 06830

Re: Kocher Drive lot
Bennington, Vermont
Wetland Project Number 2003-228

Dear Mr. Gladstone:

Thank you for meeting me at the Kocher Drive site in Bennington on June 4, 2003 to review the delineation of the wetlands on the site. In general, I concurred with the western boundaries of the largest wetland as flagged, with the exception of: the area between the ditch on the Bennington Square Partners property and flags 30 and 37; and at the northern edge of the property, where the stream through the wetland converges with Furnace Brook. We did not walk along the eastern edge of this wetland (referred to as Southern Wetland #1 and Northern Wetland #1.) I also concur with the boundary of Wetland #2. Field sheets supporting the delineation, with appropriate transects showing the typical upland/wetland conditions, should be included with any site plans as part of the permit applications.

The Vermont Wetland Rules apply to Class One and Class Two wetlands, or generally to palustrine wetlands that are mapped on the Vermont Significant Wetland Inventory Maps. The wetlands on the Kosher Drive site are mapped on VSWI map 19A as a single palustrine scrub shrub wetland, and therefore are considered Class Two wetlands under the Vermont Wetland Rules. The wetlands on the site are not as shown on the VSWI maps, however, as they have been altered from their previous condition from filling, ditching, and dredging. Some areas within the larger wetland complex appeared to be excavated for ponds, but are now filled in with wetland vegetation; one area is still a pond with open water.

It is presumed that Class Two wetlands are significant for providing one or more wetland functions or values. A functional assessment of these wetlands will also be required for both the state and federal permitting process. For a project to be approved, it must be demonstrated that there will be no undue adverse impact on the wetlands ability to provide these significant functions and values, unless the impacts are sufficiently mitigated. The first steps in the mitigation process are avoidance and minimization. You, or a prospective buyer, should first determine if the site could meet your project

purpose with no wetland impacts or stream crossings. If not, then impacts should be minimized to the maximum extent possible to avoid undue adverse impacts on protected functions. Undue adverse impacts will generally lead to a denial of a project; we normally do not consider wetland creation projects for compensatory mitigation except for public projects, such as transportation projects. Even though the Army Corps of Engineers has square foot thresholds for different levels of review, ultimately they will also look at avoidance, minimization and the functional assessment in deciding whether to approve or deny a project. Compensatory mitigation should be seen as a last resort.

It is difficult to be more specific with my review at this time. If and when conceptual plans are developed for you or a prospective buyer, you should contact the Corps and me for further review and comment.

Please call with questions or to discuss this further.

Sincerely,

Alan Quackenbush
District Wetland Ecologist

Copy furnished to:

ACOE, Vermont Project Office

North Country Ecological Services, Inc.

October 4, 2003

Mr. Alan Quackenbush
Dept. of Environmental Conservation
Wetlands Office
103 South Main Street
Building 10 North
Waterbury, Vermont 05671-0408

Re: Wetland Delineation - Lands of HGH, Inc.
Town of Bennington
Your Wetland Project No. 2003-228

Dear Mr. Quackenbush:

Pursuant to our meeting in the field, the enclosed wetland delineation mapping for the above-referenced project has been revised to address your comments. The wetland line along Kocher Drive and in the vicinity of flag #70 has been revised to accurately depict the wetland boundary in the field, the flag numbers have been added to every flag location, and the open water ponds and the stream are now shown on the map.

This map has been sent to you as a final map for confirmation of the wetland boundaries on the subject property. On behalf of the client, I am requesting a letter from your office stating that these are the accepted wetland boundaries. The letter is for use in processing any permits that will require local, state, or federal authorization.

If you have any questions regarding the mapping, feel free to call me.

Sincerely,

North Country Ecological Services

Stephen George

Encl.
cc: Mike Adams, ACOE

C:\WINDOWS\Desktop\North Country\Letters\22438.doc

173 Willie Road · Gloversville, New York 12078 · Phone/Fax (518) 725-1007

th Country Ecological Services, Inc.

December 1, 2003

Mr. Alan Quackenbush
Dept. Of Environmental Conservation
Wetlands Office
103 South Main Street
Building 10 North
Waterbury, Vermont 05671-0408

Re: Wetland Delineation Mapping
Lands of HGH, Inc., Town of Bennington
Your Wetland Project Number: 2003-228

Dear Mr. Quackenbush:

in accordance with our phone conversation this afternoon, I am resending you a copy of the wetland delineation map and October 4, 2003 cover letter for your review and file. If in the meantime you find the original submission, just add this to your file. I will also resend a copy of the map to Mike Adams at the Corps of Engineers because I have not heard from him as well.

If you have any questions, call me.

Sincerely,

North Country Ecological Services, Inc.

Stephen P. George
President

Encl.
cc: Mike Adams, Corps of Engineers

C:\letter\22438 - Bennington.wpd

173 Willie Road · Gloversville, New York 12078 · Phone/Fax (518) 725-1007

State of Vermont

Department of Fish and Wildlife
Department of Forests, Parks and Recreation
Department of Environmental Conservation
State Geologist
RELAY SERVICE FOR THE HEARING IMPAIRED
1-800-253-0191 TDD>Voice
1-800-253-0195 Voice>TDD

ROUTING
GENERAL
TO NOTED DATE
Alan
3-5-04 pu
SUSPENDED
FILE

AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation

WATER QUALITY DIVISION
103 South Main Street
Building 10 North
Waterbury, VT 05671-0408
FAX 802-241-3287
TEL 802-241-3770

March 4, 2004

Mr. Stephen George
North Country Ecological Services, Inc.
173 Willie Road
Gloversville, New York 12078

Re: Kocher Drive shopping center, HGH Inc.
Wetland Delineation

Dear Mr. George:

In reviewing my project files from 2003, it came to my attention that I had not responded to your December letter with a revised "Wetland Delineation Drawing, Lands of HGH, Inc." June 20, 2002. No note on the map denotes this latest revision.

I have compared this drawing with the earlier submittal, and find that the changes requested have been made, and the wetland boundary as shown corresponds to wetland boundary as noted at our site visit last year.

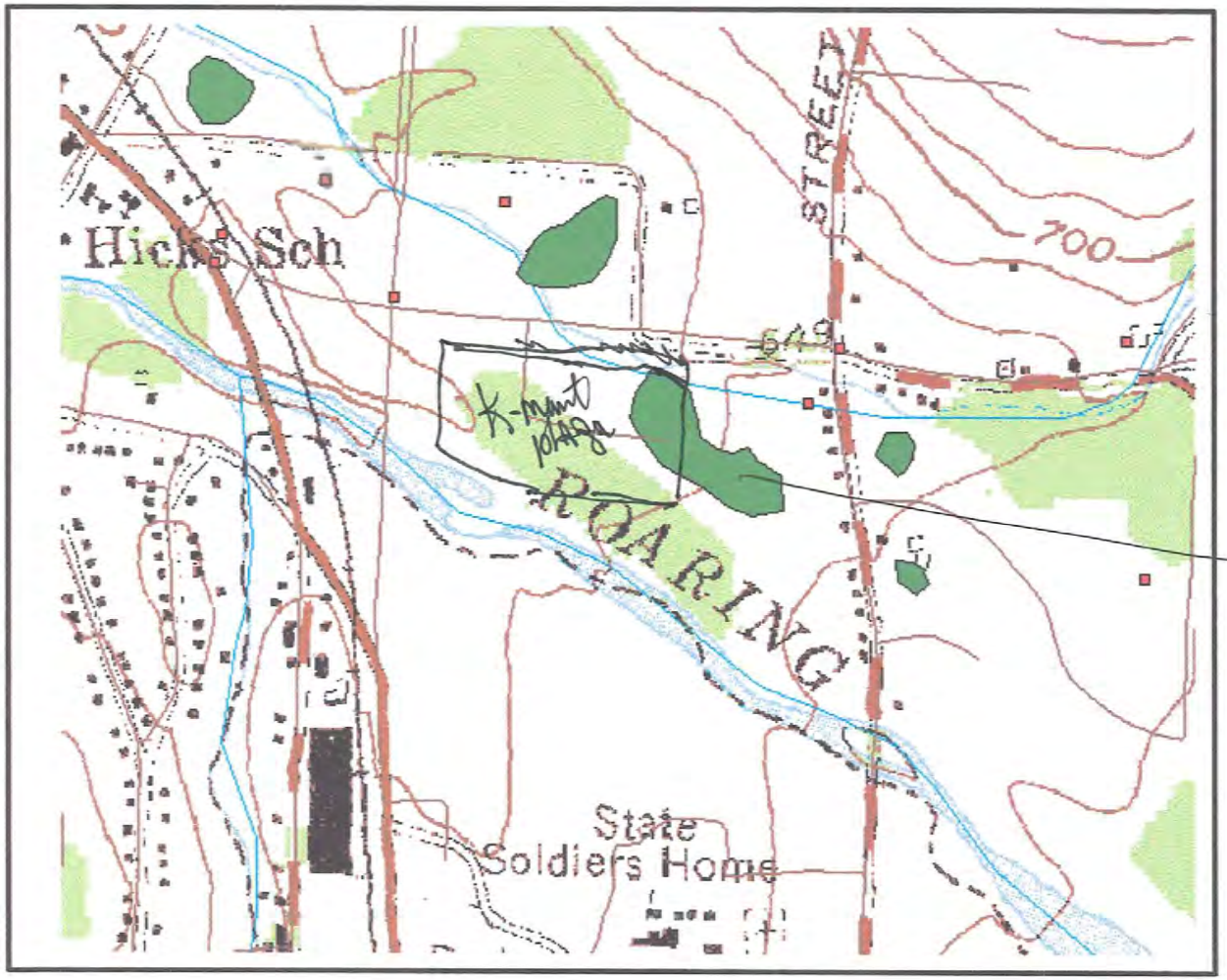
Sorry for the long delay in response.

Sincerely,

Alan Quackenbush
District Wetland Ecologist

ESRI ArcExplorer 2.0

KMart Plaza, Bennington



- project location
- threatened/endangered species
- roads
- stream, river, shoreline
- VSWI wetlands
- lake or pond

Lake Champlain (ISLAND)

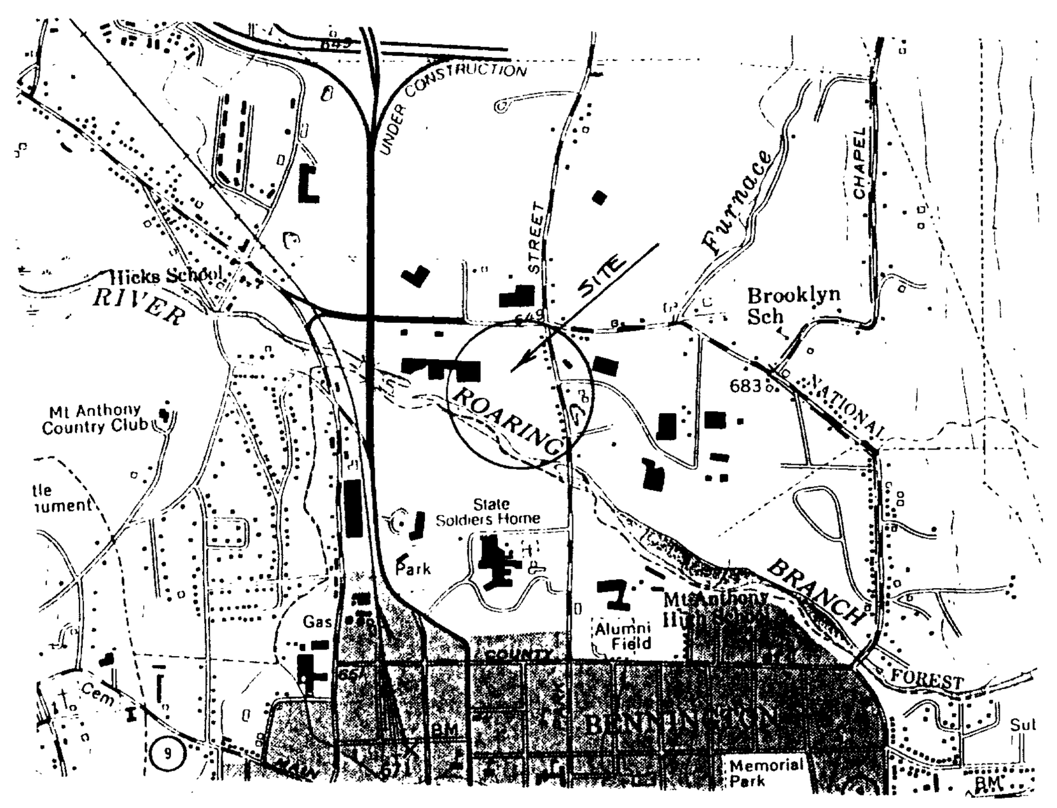
- N
- Y
- county boundary
- town boundary

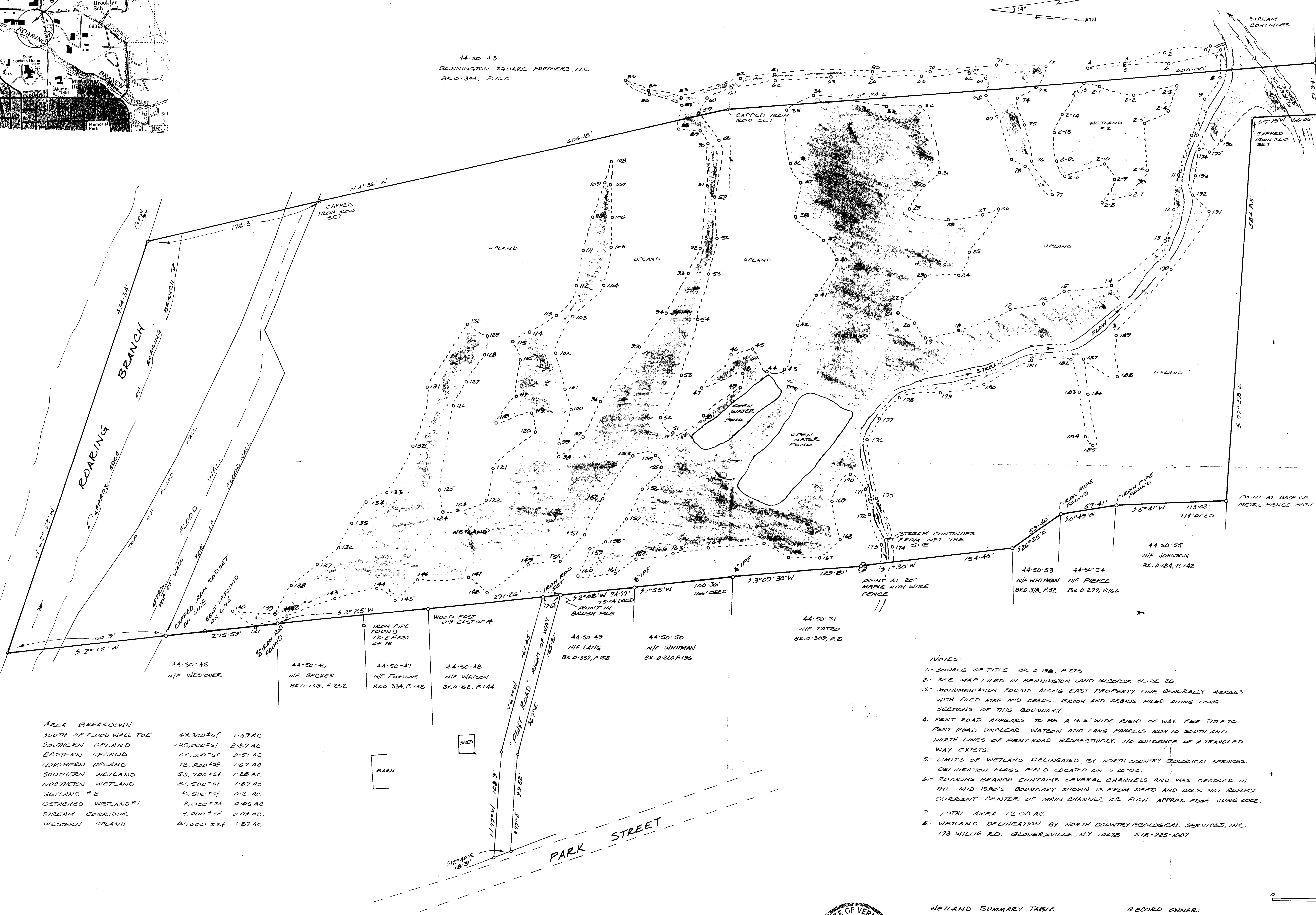
PSSIY

4191 - 171
172

4/27/92

Monday, Jun 16 2003





AREA BREAKDOWN

SOUTH OF FLOOD WALL TOE	69,300 ± sf	1.59 AC
SOUTHERN UPLAND	125,000 ± sf	2.87 AC
EASTERN UPLAND	22,300 ± sf	0.51 AC
NORTHERN UPLAND	72,800 ± sf	1.67 AC.
SOUTHERN WETLAND	55,700 ± sf	1.28 AC
NORTHERN WETLAND	81,500 ± sf	1.87 AC
WETLAND #2	8,500 ± sf	0.2 AC
DETACHED WETLAND #1	2,000 ± sf	0.05 AC
STREAM CORRIDOR	4,000 ± sf	0.09 AC.
WESTERN UPLAND	81,600 ± sf	1.87 AC

NOTES:

1. SOURCE OF TITLE BK 0-198, P.225
2. SEE MAP FILED IN BENNINGTON LAND RECORDS SLIDE 26
3. MONUMENTATION FOUND ALONG EAST PROPERTY LINE GENERALLY AGREES WITH FILED MAP AND DEEDS. BRUSH AND DEBRIS PILED ALONG LONG SECTIONS OF THIS BOUNDARY.
4. PENT ROAD APPEARS TO BE A 16.5' WIDE RIGHT OF WAY. FEE TITLE TO PENT ROAD UNCLEAR. WATSON AND LANG PARCELS RUN TO SOUTH AND NORTH LINES OF PENT ROAD RESPECTIVELY. NO EVIDENCE OF A TRAVELED WAY EXISTS.
5. LIMITS OF WETLAND DELINEATED BY NORTH COUNTRY ECOLOGICAL SERVICES. DELINEATION FLAGS FIELD LOCATED ON 5-20-02.
6. ROARING BRANCH CONTAINS SEVERAL CHANNELS AND WAS DREDGED IN THE MID-1980'S. BOUNDARY SHOWN IS FROM DEED AND DOES NOT REFLECT CURRENT CENTER OF MAIN CHANNEL OR FLOW. APPROX. EDGE JUNE 2002.
7. TOTAL AREA 12.00 AC.
8. WETLAND DELINEATION BY NORTH COUNTRY ECOLOGICAL SERVICES, INC., 173 WILLIE RD. GLOVERSVILLE, N.Y. 10278 518-725-1007

RECEIVED
SEP 18 2003
NORTH COUNTRY ECOLOGICAL

WETLAND DELINEATION DRAWING
LANDS OF
HGH, INC.

TOWN OF BENNINGTON
COUNTY OF BENNINGTON
STATE OF VERMONT
SCALE 1" = 50'
JUNE 20, 2002
7-25-02 AC. BREAKDOWN

0 50 100 150 200 250
SCALE IN FEET

WETLAND SUMMARY TABLE
WETLAND AREA 1 = 3.61 ± AC
WETLAND AREA 2 = 0.20 ± AC.

TOTAL 3.81 ± AC.

TOTAL ACREAGE OF THIS PARCEL 12.00 AC.

RECORD OWNER:
H.G.H., INC.
35 MASON ST.
GREENWICH, CT 06830
APPLICANT: SAME

STATE OF VERMONT
DAVID T. MANCE, JR
No. 563
REGISTERED LAND SURVEYOR

D. T. MANCE & ASSOCIATES, INC.

RD# 2 BOX 481
SHAFTSBURY
VERMONT 05262

N. Y. LIC NO. 49277
VT. REG. NO. 563
ST. NO. 336-B
ST. NO. 389-A

DRAFTED BY:
MAP NO.